In the Drawings

This Amendment amends Figures 2-10 to add reference numbers for features shown in the claims but not previously referenced.

REMARKS

The amendment amends claims 1, 18, 19, 20, 21, 37, 38, 45, 48 and adds claims 61-63. Claims 1-27, 37-56, and 59-63 are pending although claims 11, 24, 29-36, 47, 49, 50, 51, and 58 are withdrawn.

A. Claim Objection and Rejection Under 35 U.S.C. 112

The Action had objections and rejections with respect to two claim limitations, the first being the use of "transverse contact" and the second being the use of "in either of two orientations." As to the former, the claim language for "transverse contact" has been removed from the claims. With respect to the later, the amendment to paragraph [0047] clarifies what is shown in the Figures by adding the following.

> As best seen in FIG. 5, the plate 50 can be properly oriented in two positions, one as shown and a second rotated 180 degrees about the axis of the nipple 40. The proper orientation in either of these two positions is with the plate sides 50c against the rim sides 21 and with the plate bottom face 50b against peripheral joining zone 27.

The Action argued at page 3 that the § 112 rejections were new matter rejections. It can be seen from Figures 3, 5, and 6 that the plate 50 can only properly align with the rim sides 21 in two orientations 180 degrees from one another about the axis of nipple 40. Thus, claim elements directed to this limitation are not new matter, because this property was originally shown in the Figures.

B. Claim Rejections Under 35 U.S.C. 102, 103

The Action rejected all of the pending claims as anticipated or obvious over U.S. Patent Nos. 1,222,094; 2,937,905; and 6,536,849 to Fromann, Altenburger, and Okajima; and JP 60-38201, alone or in combination.

Fromann shows a wheel with threadless spokes that can all be tightened at once using the Fromann hub.

Altenburger shows anchor elements 32 that are mounted within the hub in one of two ways depending on the spoke location. The anchor elements 32 have a recessed hole that holds an enlarged head of a spoke nipple within the anchor element.

Okajima shows a reinforcement member 48 that attaches to an angled spoke head that is attached through the sidewall of a bicycle wheel rim.

JP '280, as best understood, shows a nipple 3a engaged within a rim.

None of these references show or suggest what is now claimed, either alone or combination. These remarks address differences between the claim elements and the prior art, organized by claim groupings.

1. <u>Claims 1-17 and 59-63</u>

a. *Claim 1*

The prior art fails to teach the following limitation in independent claim 1 and its dependent claims 2-17 and 59-63, particularly the underlined portions.

> *a plurality of seats formed as openings in the base of the rim, each seat to house one of said spoke attachment elements...*
>
> *the spoke attachment element inserted in the seat is in a second configuration in which at least one of the sides of the rim prevents rotation of the spoke attachment element with respect to the seat due to contact between the spoke attachment element and the side of the rim*

Fromann's flat spokes prevent their rotation within the flat slot in the rim's annular formations 16. This is contrary to the claimed "in which at least one of the sides of the rim prevents rotation," because Fromann's rim sides have no effect on the rotation of a spoke. Further, Fromann does not have "seats formed as openings in the base of the rim" as claimed and thus Fromann does not teach or suggest the claim limitation.

Altenburger's anchor element 32 is discouraged (not prevented) from rotation because of its engagement within the recess 33 that is located in the rim base 13. Thus, Altenberger's rim sides fail to prevent rotation of an attachment element as claimed; in fact, this is the opposite of what is claimed. The disadvantage of Altenberger's design is that the anchor element's free rotation makes for a clumsy installation, because the anchor element 32 needs repeated reseating within the recess 33. Altenberger fails to teach or suggest preventing the claimed spoke attachment rotation prevention and further, it fails to teach or suggest that its rims sides have any role in preventing anchor element rotation.

Okajima does not teach or suggest preventing rotation and indeed, the complementary circular shapes of the reinforcement element 48 and hole 76 encourage rotation within the hole 76. Further, Okajima's holes 76 are not located in the rim base as claimed in claims 1-17 and 59-63. Thus Okajima fails to teach or suggest the claim limitation.

b. Claim 10

Regarding claim 10, none of the references show the claimed "one notch [in the plate] for receiving an elongated portion of the spoke in the insertion position." Altenburger shows a recessed seat 15, but it is located on the rim, and it is made to seat the nipple's head, which is different than what is claimed. Altenburger's anchor element 32 does not have the claimed "notch" either. The other cited references do not show or suggest such a "notch." The Action failed to point out any teaching of this element, and thus, withdrawal of the rejection of claim 10 is requested.

c. Claim 14

Regarding claim 14, JP '201 does not show or suggest a gasket that extends "along a portion of the spoke attachment element and through the opening in the second configuration." The advantage of the claimed configuration is that the gasket prevents the ingress of moisture and dirt within the opening, which prevents corrosion both in the plate and in the rim. The Action failed to point out any

teaching of this element, and thus, withdrawal of the rejection of claim 14 is requested.

d. Claim 59

Regarding claim 59, none of the references show or suggest a spoke attachment element that does not extend outside of the rim. Altenburger and Okajima both show elements that extend *through* the rim to an outside thereof. These references encourage the creep of dirt and debris into the rim where it can corrode the spokes, spoke attachment element, rim, or tube—all of which the claimed invention prevents. The Action failed to point out any teaching of this element, and thus, withdrawal of the rejection of claim 59 is requested.

e. Claim 60

Regarding claim 60, none of the references show or suggest that the head cannot pass within the plate. Altenburger's head is contained *within* the anchor element 32; Okajima's head is similarly located *within* the reinforcement member 48. The prior art embodiments encourage rotation of the anchor/reinforcement element when the nipple rotates, a feature that hinders installation. The Action failed to point out any teaching of this element, and thus, withdrawal of the rejection of claim 60 is requested.

f. Claim 61

The prior art fails to teach the following limitation in added claim 61.

> *the contact plate has a generally flattened shape with opposed faces separated by edges wherein in the second configuration, the side of the rim prevents rotation of the contact plate through contact between a contact plate edge and the rim*

Claim 61 should be patentable for the reasons discussed with respect to claim 1, but also because the prior art fails to teach or suggest the above-added limitation.

Fromann's rim base prevents rotation of the spoke because of the spoke's flat shape; Fromann is silent about preventing rotation of the key 20, because preventing its rotation is unnecessary. Thus, Fromann fails to teach or suggest the claim element.

Nothing in Alternberger prevents its anchor element 32's rotation; further, since the rim sides in Altenberger do not even contact the anchor element, Altenberger does not teach or suggest the claim element.

Okajima's reinforcement members 48 contact its rim side 70, but the rim side fails to prevent rotation (note the circular shape of the reinforcement member 48). Further, the while Okajima's reinforcement member 48 has a flattened shape, its sides do not contact the rim sides—only its flattened face does. Thus, Okajima fails to teach or suggest the claim element.

g. Claim 62

The prior art fails to teach the following limitation in added claim 62.

> *in which in the second configuration, the contact plate edges are oriented generally parallel to the sides of the rim and the contact plate opposed faces are oriented generally perpendicular to the sides of the rim*

Claim 62 further limits claim 61, and is at least patentable for the reasons discussed above with respect to claims 61 and 1. The claimed shape further differentiates itself from the prior art shapes, especially in that none of the prior art elements do not have edges parallel to the rim sides or opposed faces generally perpendicular to the rim sides.

h. Claim 63

The prior art fails to teach the following limitation in added claim 63.

> *in which in the second configuration, one of the opposed faces engages a joining zone that spans between the sides of the rim*

Claim 63 further limits claim 62, and is at least patentable for the reasons discussed above with respect to claims 62, 61, and 1. The prior art does not teach or suggest the above limitation in combination with claims 1, 61, and 62—Okajima in particular fails to teach the attachment element in the joining zone.

2. Claims 18-27

a. *Claim 18*

Independent claim 18 and its dependent claims 19-27 are patentable for at least the reasons discussed with respect to claim 1. The following claim element,

similar to the element in claim 1, is at least not shown in the prior art.

> *wherein the spoke attachment element is suitable for being put in a second configuration in which at least one of the sides of the rim prevents rotation of the spoke attachment element due to contact between the spoke attachment element and the at least one side of the rim*

b. Claims 19 and 20

Claims 19 and 20 are patentable for at least the reasons discussed with respect to claim 18. Okajima in particular fails to teach or suggest that "in the second configuration, the plurality of seats is coaxial with the hole in the plate, the head, and the longitudinal axis of the stem." Okajima's spoke's axis is not coaxial with holes in the rim or its anchor elements.

The remaining claims depend from at least one of the above-mentioned claims, and are allowable at least for the reasons mentioned above.

3. Claims 37-47

Claim 37 claims "base facing spoke attachment elements" and "a plurality of plates, shaped to pass through the openings when positioned at a first angle and to effectively engage the seats in either of two orientations 180 degrees from each other about a longitudinal axis of the spokes." This is not shown or suggested in Altenburger or Okajima. Altenburger's anchor elements cannot be rotated 180 degrees; if they are, they are not "effective," as the anchors in Altenburger must be

aligned one way or the other (see Figure 10), as the elements in Altenburger are not symmetrical when viewed through the section shown in Altenburger Figure 8. The elements as claimed can be so rotated during installation, which is advantageous over Altenburger. Okajima does not cure this defect, for while the reinforcement elements in Okajima can freely rotate, they are not "base facing."

Regarding claim 40, see the above argument with respect to claim 10 (notch).

Regarding claim 45, see the above argument with respect to claim 14 (gasket).

The remaining claims depend from at least one of the above-mentioned claims, and are allowable at least for the reasons mentioned above.

4. Claims 48-56

Independent claim 48, and its dependent claims all recite the following element not taught or suggested in the prior art.

> *positioning each of the plates at a second position angle relative to the respective opening in the base to secure each of the plates on an interior surface of the base in one of two orientations, and aligning the inner hole of each of the plates with a respective one of the seats of the rim;*

Similar to the above remarks with respect to claim 37, the prior art does not teach or suggest securing the plates "on an interior surface of the base in one of two orientations" as claimed.

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Conclusion

All of the pending claims, including those currently withdrawn, are believed to be in condition for allowance. If the Examiner believes that a telephone or personal interview would advance the prosecution of this application, the undersigned invites such a conference.

Respectfully submitted,

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